

What Is Claimed Is:

Sub C17  
1. An ink jet printer head, wherein ink drops are ejected from nozzles formed in a nozzle surface, <sup>comprising</sup> ~~having:~~

a metal layer comprising metal formed on said nozzle surface; and

a self-organized film layer consisting essentially of a polycyclic thiol compound formed on <sup>a</sup> <sub>1</sub> top of said metal layer.

2. The ink jet printer head according to claim 1, wherein an intermediate layer consisting of nickel, chromium, tantalum or titanium, or an alloy thereof, is provided between a member that forms said nozzle surface and said metal layer.

A' > 3. The ink jet printer head according to claim 1 or 2, wherein said self-organized film layer is formed on inner walls of said nozzles.

4. The ink jet printer head according to claim 1 or 2, wherein said nozzles are provided in indented sections provided in said nozzle surface.

5. The ink jet printer head according to claim 1 or 2, further comprising cavities into which ink is filled and pressure-applying devices that produce volume changes in said cavities, wherein ink drops are ejected from said nozzles through

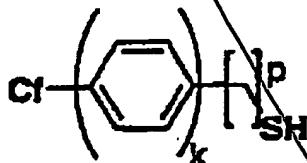
Sub A' (cont) said volume changes in said cavities.

Sub C' (cont) 6. The ink jet printer head according to claim 5, wherein said pressure-applying devices are piezoelectric elements.

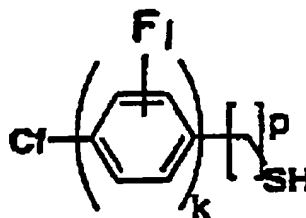
7. The ink jet printer head according to claim 5, wherein said pressure-applying devices are heat-generating elements.

8. The ink jet printer head according to any of claims 1 through 7, wherein said polycyclic thiol compound is a compound represented by undermentioned general formula (I) or (II):

(I)



(II)



wherein Cf is  $\text{CF}_3(\text{CF}_2)_n$ ,  $\text{CF}_2(\text{CF}_2)_n(\text{CH}_2)_m$ ,  $(\text{CF}_3)_2\text{CF}(\text{CF}_2)_n$ ,  $(\text{CF}_3)_2\text{CF}(\text{CF}_2)_n(\text{CH}_2)_m$ ,  $(\text{CF}_3)_3\text{C}(\text{CF}_2)_n$  or  $(\text{CF}_3)_3\text{C}(\text{CF}_2)_n(\text{CH}_2)_m$ , n is an integer greater than or equal to 0, m is an integer greater than or equal to 1, k is an integer greater than or equal to 3, p is an integer greater than or equal to 1, and l is an integer from 1 to 4.

Sub (cont) 9. The ink jet printer head according to claim 8, wherein, in said general formula (I) or (II), Cf is  $\text{CF}_3(\text{CF}_2)_n$  or  $\text{CF}_2(\text{CF}_2)_n(\text{CH}_2)_m$ .

Sub  
C-1  
Cont

n is an integer from 0 to 15, m is an integer from 1 to 20, k is 3 or 4, p is an integer from 1 to 20, and l is an integer from 1 to 4.

10. The ink jet printer head according to claim 8, wherein, in said general formula (I) or (II), Cf is  $(CF_3)_2CF(CF_2)_n$  or  $(CF_3)_2CF(CF_2)_n(CH_2)_m$ , n is an integer from 0 to 15, m is an integer from 1 to 20, k is 3 or 4, p is an integer from 1 to 20, and l is an integer from 1 to 4.

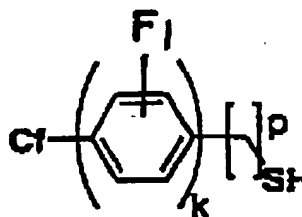
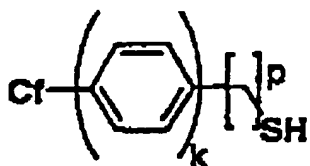
11. The ink jet printer head according to claim 8, wherein, in said general formula (I) or (II), Cf is  $(CF_3)_3C(CF_2)_n$  or  $(CF_3)_3C(CF_2)_n(CH_2)_m$ , n is an integer from 0 to 15, m is an integer from 1 to 20, k is 3 or 4, p is an integer from 1 to 20, and l is an integer from 1 to 4.

13 > 12. A method of manufacturing the ink jet printer head according to any of claims 1 through 11, comprising the steps of:  
forming a metal layer on a nozzle surface of a nozzle member; and  
immersing said nozzle member on which said metal layer has been formed in a solution in which a polycyclic thiol compound has been dissolved.

13. A polycyclic thiol compound <sup>comprises an</sup> ~~represented by~~ undermentioned general formula (I) or (II):

(I)

(II)



wherein Cf is  $\text{CF}_3(\text{CF}_2)_n$ ,  $\text{CF}_3(\text{CF}_2)_n(\text{CH}_2)_m$ ,  $(\text{CF}_3)_2\text{CF}(\text{CF}_2)_n$ ,  $(\text{CF}_3)_2\text{CF}(\text{CF}_2)_n(\text{CH}_2)_m$ ,  $(\text{CF}_3)_3\text{C}(\text{CF}_2)_n$  or  $(\text{CF}_3)_3\text{C}(\text{CF}_2)_n(\text{CH}_2)_m$ , n is an integer greater than or equal to 0, m is an integer greater than or equal to 1, k is an integer greater than or equal to 3, p is an integer greater than or equal to 1, and l is an integer from 1 to 4.